Scientific and Technical Information Center

SEARCH REQUEST FORM

Requester's Full Name: Art Unit: 1624 Phone Location (Bldg/Room#): 5 CO1 (Number: 2- 0663 Mailbox #): 5C18 Resu	aminer #: 59193 Date: 24 Serial Number: Its Format Preferred (circle): PAPER	6/06 1080/ 1) DISK
To ensure an efficient and quality search,	olease attach a copy of the cover sl	eet, claims, and abstract or fill out the follow	ring:
Title of Invention:		•	
Inventors (please provide full names):			
Earliest Priority Date:		,	
Search Topic: Please provide a detailed statement of the see elected species or structures, keywords, syno Define any terms that may have a special me	nyms, acronyms, and registry numb	lly as possible the subject matter to be searched ers, and combine with the concept or utility of itations, authors, etc., if known.	d. Include th the invention
For Sequence Searches Only Please incluappropriate serial number.	de all pertinent information (paren	t, child, divisional, or issued patent numbers) (along with the
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per set where the replaced by formula	this as actions as a compared with the read in the control of the	the structure also as (As peaced by S. whomed outh a conject of the Q = HallOIN	<i>*</i>)
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Searcher:	NA Sequence (#)	STNDialog	3
Searcher Phone #:	AA Sequence (#)	Questel/OrbitLexi	s/Nexis
Searcher Location:	Structure (#)	Westlaw WWW	//Internet
Date Searcher Picked Up:	Bibliographic	In-house sequence systems	
Date Completed: 221)	Litigation	Commercial Oligomer Interference SPD1	Score/Length Encode/Transl
Searcher Prep & Review Time:	Fulltext	Other (specify)	

=> fil casreact
FILE CASREACT ENTERED AT 14:59:49 ON 17 FEB 2006
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FILE CONTENT: 1840 - 12 Feb 2006 VOL 144 ISS 7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

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This file contains CAS Registry Numbers for easy and accurate substance identification.

VAR G1=X/O/N

NODE ATTRIBUTES:

. . . %

NSPEC IS RC AT 11
NSPEC IS RC AT 18
CONNECT IS E1 RC AT 22
CONNECT IS E1 RC AT 27
DEFAULT MISSEL IS ATOM

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 36

STEREO ATTRIBUTES: NONE

O SEA FILE=CASREACT SSS FUL L7 (O REACTIONS) L9

=> d his ful

. . .

L5

(FILE 'HOME' ENTERED AT 14:53:42 ON 17 FEB 2006)

	FILE	'REGIS	TRY'	ENT	ERED	AT	14:	53:52	ON	17	FEB	2006	
L1		89612	SEA	ABB=	ON	PLU=	ON-	NC3/	ESS	AND	NCS	SC3/ES	S
		110	~~~				~			O T . 1			

- 113 SEA ABB=ON PLU=ON L1 AND SI>1 L2
- 111 SEA ABB=ON PLU=ON L2 AND N>1 AND O>2 L3
- STR T.4
 - O SEA SSS SAM L4
- L6 7 SEA SSS FUL L4
 - D SCA

FILE 'CASREACT' ENTERED AT 14:57:32 ON 17 FEB 2006

- L7 STR L4
- 0 REACTIONS) rsO SEA SSS SAM L7 (
- O SEA SSS FUL L7 (O REACTIONS) L9

FILE 'CASREACT' ENTERED AT 14:59:49 ON 17 FEB 2006 D QUE

FILE 'REGISTRY' ENTERED AT 15:00:14 ON 17 FEB 2006

- L10STR L4
- L11184 SEA SSS FUL L10
- 1224926 SEA ABB=ON PLU=ON SI/ELS L12

FILE 'HCAPLUS' ENTERED AT 15:00:53 ON 17 FEB 2006

- L13
- 3 SEA ABB=ON PLU=ON L6(L)PREP+ALL/RL 38 SEA ABB=ON PLU=ON L11(L)RACT+ALL/RL 3 SEA ABB=ON PLU=ON L13 AND L14 L14
- L15

FILE 'REGISTRY' ENTERED AT 15:02:06 ON 17 FEB 2006

FILE 'HCAPLUS' ENTERED AT 15:02:09 ON 17 FEB 2006 L16 TRA L15 1- RN : 94 TERMS

FILE 'REGISTRY' ENTERED AT 15:02:09 ON 17 FEB 2006

- 94 SEA ABB=ON PLU=ON L16 L17
- L18 STR
- L19 9 SEA SUB=L17 SSS FUL L18

FILE 'HCAPLUS' ENTERED AT 15:02:46 ON 17 FEB 2006

- 9310 SEA ABB=ON PLU=ON L19(L)RACT+ALL/RL
 3 SEA ABB=ON PLU=ON L20 AND L15
 4 SEA ABB=ON PLU=ON L6
 4 SEA ABB=ON PLU=ON L21 OR L22 L20
- L21
- L22
- L23

FILE HOME

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

15 FEB 2006 HIGHEST RN 874326-73-5 STRUCTURE FILE UPDATES: DICTIONARY FILE UPDATES: 15 FEB 2006 HIGHEST RN 874326-73-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

FILE CASREACT

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FILE CONTENT:1840 - 12 Feb 2006 VOL 144 ISS 7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

Some CASREACT records are derived from the ZIC/VINITI database (1974-1991) provided by InfoChem, INPI data prior to 1986, and Biotransformations database compiled under the direction of Professor Dr. Klaus Kieslich.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE HCAPLUS

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FILE COVERS 1907 - 17 Feb 2006 VOL 144 ISS 9 FILE LAST UPDATED: 16 Feb 2006 (20060216/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> fil hcap FILE 'HCAPLUS' ENTERED AT 15:03:29 ON 17 FEB 2006 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

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FILE COVERS 1907 - 17 Feb 2006 VOL 144 ISS 9 FILE LAST UPDATED: 16 Feb 2006 (20060216/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

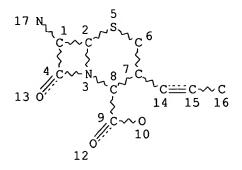
NODE ATTRIBUTES:
NSPEC IS RC AT 11
NSPEC IS RC AT 18
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 18

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STEREO ATTRIBUTES: NONE
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L6 7 SEA FILE=REGISTRY SSS FUL L4

L10 STR



NODE ATTRIBUTES:

CONNECT IS E1 RC AT 10 CONNECT IS E1 RC AT 17 DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE

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L14		SEA FILE=HCAPLUS			L11(L)RACT+ALL/RL
L15	3	SEA FILE=HCAPLUS	ABB=ON	PLU=ON	L13 AND L14
L16		TRANSFER PLU=ON	L15 1-	RN:	94 TERMS
L17	94	SEA FILE=REGISTRY	ABB=ON	PLU=ON	L16
L18		STR			

Si×G1

VAR G1=X/O/N NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 2

STEREO ATTRIBUTES: NONE

ALL/RL

=> d 123 ibib abs hitstr 1-4

L23 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2005:450973 HCAPLUS

DOCUMENT NUMBER:

142:481876

TITLE:

Process for preparation of $7-[\alpha-amino(4-$

hydroxyphenyl)acetamido]-3-substituted-3-cephem-4-

carboxvlic acid

INVENTOR(S):

Tyagi, Om Dutt; Rane, Dnyandev Ragho; Srivastava,

Tushar Kumar; Sirsath, Krishnarao Tukaram

Lupin Ltd., India PATENT ASSIGNEE(S):

SOURCE:

U.S. Pat. Appl. Publ., 12 pp.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. _____ KIND DATE APPLICATION NO.

7 pionale

US 2005113570

A1 20050526

US 2004-801443 IN 2003-MU1031 20040315

PRIORITY APPLN. INFO.: OTHER SOURCE(S):

II

20030310 Α

GI

CASREACT 142:481876; MARPAT 142:481876

Me o_R2 HN O O

AB A process is described for the preparation of 7-[D- α -amino- α -(4hydroxyphenyl)acetamido]-3-(1-propen-1-yl)-3-cephem-4-carboxylic acid (Cefprozil) in high yield and high purity, substantially free of impurities, which comprises preparation of mixed acid anhydride I (R1 = alkyl, aryl; R2 = Me, Et) by selecting the sequence and temperature of addition of the reagents and its subsequent condensation with a protected 7-APCA, followed by hydrolysis, isolation and purification to give Cefprozil in the form of a monohydrate. Thus, I (R1 = Et, R2 Me) was prepared from Et chloroformate with N-methylmorpholine and the potassium phenylacetate derivative, then condensed with II (preparation given), followed by HCl hydrolysis to give Cefprozil monohydrate.

IT 120709-09-3, 7 APCA

RL: RCT (Reactant); RACT (Reactant or reagent)

Ι

(preparation of Cefprozil via condensation of mixed anhydride with disilylated 7-APCA followed by hydrolysis)

RN 120709-09-3 HCAPLUS

5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, CN

7-amino-8-oxo-3-(1-propenyl)-, (6R,7R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.

851983-02-3P IT

> RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of Cefprozil via condensation of mixed anhydride with disilylated 7-APCA followed by hydrolysis)

RN 851983-02-3 HCAPLUS

5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, CN

8-oxo-3-(1-propenyl)-7-[(trimethylsilyl)amino]-, trimethylsilyl ester,

(6R, 7R) - (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry unknown.

L23 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2004:372931 HCAPLUS

DOCUMENT NUMBER:

140:391158

TITLE:

Process for preparing 3-propenyl cephalosporin DMF solvate from 4-methoxybenzyl 7-phenylacetamido-3-

chloromethyl-3-cephem-4-carboxylate

INVENTOR(S):

Deshpande, Pandurang Balwant; Khadangale, Bhausaheb Pandharinath; Gurusamy, Kumar; Konda, Ramesh Athmaram

PATENT ASSIGNEE(S):

Orchid Chemicals & Pharmaceuticals Limited, India

SOURCE:

U.S. Pat. Appl. Publ., 10 pp.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE			
US 2004087786 US 6903211	A1 B2	20040506	US 2002-315010	20021210			
WO 2004039812	A1	20040513	WO 2002-IB5459	20021218			
CO, CR, CU,	CZ, DE	, DK, DM, DZ	A, BB, BG, BR, BY, BZ, B, EC, EE, ES, FI, GB, P, KE, KG, KP, KR, KZ,	GD, GE, GH,			

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LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     EP 1562957
                                20050817
                                            EP 2002-788375
                                                                    20021218
                          A1
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
PRIORITY APPLN. INFO.:
                                            IN 2002-MA800
                                                                 Α
                                                                    20021030
                                            WO 2002-IB5459
                                                                 W
                                                                    20021218
                         CASREACT 140:391158; MARPAT 140:391158
OTHER SOURCE(S):
```

GΙ

$$H_{2N}$$
 H_{2N}
 H

III

The present invention relates to an improved process for the preparation of 3-propenyl cephalosporin (I) DMF solvate (II), more particularly, the present invention relates to an improved process for the preparation of cefprozil DMF solvate, which is useful for the preparation of cefprozil. Thus 7-APCA (III) prepared from 4-methoxybenzyl 7-phenylacetamido-3-chloromethyl-3-cephem-4-carboxylate via a multistep synthetic sequence, was silylated with Me3SiCl and (Me3Si)2NHin CH2Cl2 and reacted with (-)-D-(p-hydroxyphenyl)glycine Dane salt IV (R2 = alkyl, Ph, CH2Ph, cycloalkyl; R3 = Me, Et, CHMe2), in the presence of a halogenated solvent and solvation with DMF, afforded II. II was desolvated with water to provide cis-cefprozil I.

o_R3

0

Me

ΙV

IT 106447-44-3P

RL: BPN (Biosynthetic preparation); IMF (Industrial manufacture); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)

(preparation of 3-propenyl cephalosporin DMF solvate from 4-methoxybenzyl 7-phenylacetamido-3-chloromethyl-3-cephem-4-carboxylate)

RN 106447-44-3 HCAPLUS

CO₂H

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-amino-8-oxo-3-(1Z)-1-propenyl-, (6R,7R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

IT 685836-16-2P

RL: BPN (Biosynthetic preparation); IMF (Industrial

manufacture); RCT (Reactant); SPN (Synthetic

preparation); BIOL (Biological study); PREP (Preparation);

RACT (Reactant or reagent)

(preparation of 3-propenyl cephalosporin DMF solvate from 4-methoxybenzyl 7-phenylacetamido-3-chloromethyl-3-cephem-4-carboxylate)

RN 685836-16-2 HCAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,

8-oxo-3-(1Z)-1-propenyl-7-[(trimethylsilyl)amino]-, trimethylsilyl ester,

(6R, 7R) - (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

IT 75-77-4, Trimethylsilyl chloride, reactions 999-97-3,

Hexamethyldisilazane

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of 3-propenyl cephalosporin DMF solvate from 4-methoxybenzyl

7-phenylacetamido-3-chloromethyl-3-cephem-4-carboxylate)

RN 75-77-4 HCAPLUS

CN Silane, chlorotrimethyl- (8CI, 9CI) (CA INDEX NAME)

RN 999-97-3 HCAPLUS

CN Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)- (9CI) (CA INDEX NAME)

Me3Si-NH-SiMe3

L23 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:819381 HCAPLUS

DOCUMENT NUMBER: 132:64106

TITLE: Preparation and formulation of propenyl cephalosporin

derivatives for pharmaceutical use as antibiotics for the treatment and prophylaxis of infectious diseases

Angehrn, Peter; Goetschi, Erwin; Heinze-Krauss, Ingrid; Richter, Hans G. F. INVENTOR(S):

PATENT ASSIGNEE(S): F. Hoffmann-La Roche A.-G., Switz.

SOURCE: PCT Int. Appl., 103 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA	PATENT NO.					KIND DATE			APPLICATION NO.						DATE			
WO	9967	 255			A1	_	1999	1229	WO 1999-EP4034						19990611			
	W:	ΑE,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG	BR,	BY,	CA,	CH,	CN,	CU,	CZ,	
		DE,	DK,	EE,	ES,	FI,	GB,	GD,	GE,	GF	I, GM,	HR,	HU,	ID,	IL,	IN,	IS,	
		JP,	KE,	KG,	KP,	KR,	KZ,	LC,	LK,	LF	R, LS,	LT,	LU,	LV,	MD,	MG,	MK,	
		MN,	MW,	MX,	NO,	NZ,	PL,	PT,	RO,	RU	J, SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	
		TM,	TR,	TT,	UA,	UG,	UZ,	VN,	YU,	z_{I}	A, ZW,	AM,	AZ,	BY,	KG,	KZ,	MD,	
		RU,	TJ,	TM														
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		ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC	C, NL,	PT,	SE,	BF,	ВJ,	CF,	CG,	
											I, TD,							
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AU	9946	081			A1		2000	0110		AU	1999-	4608	1		1	.9990		
AU	7614	50			В2		2003	0605										
BR	9911	445			Α		2001	0320		BR	1999-	1144	5		1	.9990	611	
EP	1090	013			A1		2001	0411		EΡ	1999-	9291	82		1	9990	611	
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		IE,	SI,	LT,	LV,	FI,	RO											
TR	2000	0380	7		Т2		2001	0621		TR	2000-	2000	03807	7	1	.9990	611	
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US	6583	133			В1		2003	0624			1999-					.9990	622	
ZA	2000	0070	74		Α		2002	0530			2000-					20001	130	
NO	2000	0065	07		Α		2000	1220		NO	2000-	6507			2	20001	220	
PRIORIT	Y APP	LN.	INFO	.:						EΡ	1998-	1114	15		A 1	9980	622	
										EΡ	1999-	1081	49		A 1	.9990	426	
										WO	1999-	EP40	34	(1	W 1	.9990	611	
THER C	OHRCE	191 .			MARI	ידי עוכ	132.	6410	6									

OTHER SOURCE(S):

MARPAT 132:64106

GI

AB Propenyl cephalosporins I [R = alkyl, aryl, heteroaryl, arylalkyl, alkenyl, etc.; R1 = H, Ph, alkyl; R2 = group with a secondary-, tertiary or quaternary nitrogen atom bound directly to the propenyl group, such as pyridinium, pyrrolidine, trimethylammonium, etc.] were prepared and formulated for pharmaceutical use as antibiotics for the treatment and prophylaxis of infectious diseases. Thus, propenyl cephalosporin II was prepared in a 3 step synthetic sequence starting from [6R-[3(E), 6 α , 7 β]]-3-(3-iodo-1-propenyl)-8-oxo-7-[(trimethylsilyl)amino]-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid trimethylsilyl ester, phenylthioacetic acid, and pyridine. The prepared propenyl cephalosporins were tested for antibacterial activity against methicillin-resistant strains of Staphylococcus aureus.

IT 148304-98-7

RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation and formulation of propenyl cephalosporin derivs. for
pharmaceutical use as antibiotics for the treatment and prophylaxis of
infectious diseases)

RN 148304-98-7 HCAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 3-[(1E)-3-iodo-1-propenyl]-8-oxo-7-[(trimethylsilyl)amino]-, trimethylsilyl ester, (6R,7R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

REFERENCE COUNT:

3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1993:427926 HCAPLUS

DOCUMENT NUMBER:

119:27926

TITLE:

Preparation and reaction of silylated

iodoallylcephalosporins

INVENTOR(S):

Ludescher, Johannes; Sturm, Hubert; Wieser, Josef

Biochemie Gesellschaft m.b.H., Austria PATENT ASSIGNEE(S):

SOURCE:

Eur. Pat. Appl., 12 pp.

DOCUMENT TYPE:

Patent

CODEN: EPXXDW

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.					ס ס	DATE			PLICA	DATE					
	528343 528343			A2 A3	_		0224	EP	1992	2-113	3715			19920	812
	528343			B1	2	002	918								
AT	R: AT, 9101636	BE,	CH,	DE, A	DK,		FR, 1015		•	•	C, LI, 36			, PT, 19910	
	396108 224393			В	_		0625	ח ע	100	o. 115	3715			19920	012
	528343			E T			1231				3715			19920	812
_ -	2183804 05194533			T3 A2	_		0401				3715 L330			19920 19920	
JP	2561780			B2	1	996	1211								
	5644052 5686604			A A			0701 1111		1999 1999					19950 19950	
US	6169180	TNEO		B1	2	001	0102		199 199				A	19971 19910	
PRIORIT	Y APPLN.	INFO	• •					US	1992	2-932	2145		В1	19920	819
								US	199	5-437	7083		A3	19950	505

OTHER SOURCE(S):

MARPAT 119:27926

GΙ

$$R^{1}HN$$
 $CH = CHCH_{2}X$
 $CO_{2}R^{2}$

Title compds. (I; R = H, MeO; R1 = H, silyl protecting group; R2 = H, AB silyl protecting group, neg. charge; X = radical of a nucleophile), were prepared by treatment of I (R = H, MeO; R1 = R2 = silyl; X = iodo) with a nucleophile followed by optional desilylation. Thus, 7trimethylsilylamino-3-(3-iodo-1-propen-1-yl)-3-cephem-4-carboxylic acid trimethylsilyl ester (preparation given) was stirred at 0° with a prerefluxed mixture of N-methyl-N-ethylglycinamide, saccharin, and (Me3Si)2NH in MeCN to give 7-amino-3-[(E)-3-(carbamoylmethylethylammonium)-1-propen-1-yl]-3-cephem-4-carboxylic acid iodide.

148305-34-4 148333-03-3

RL: RCT (Reactant); RACT (Reactant or reagent)

Ι

(N-silylation of)
RN 148305-34-4 HCAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,
3-[3-(formyloxy)-1-propenyl]-8-oxo-7-[(trimethylsilyl)amino]-,
trimethylsilyl ester, [6R-[3(2),6α,7β]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

RN 148333-03-3 HCAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,

3-[3-(acetyloxy)-1-propenyl]-8-oxo-7-[(trimethylsilyl)amino]-, trimethylsilyl ester, $[6R-[3(Z),6\alpha,7\beta]]-(9CI)$ (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

$$\begin{array}{c|c} H & H & S \\ \hline R & R & \\ \hline O & O & \\ \hline \end{array}$$

IT 148304-99-8P 148305-00-4P 148305-35-5P RL: RCT (Reactant); SPN (Synthetic preparation);

PREP (Preparation); RACT (Reactant or reagent)

(preparation and iodination of)

RN 148304-99-8 HCAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 3-[3-(acetyloxy)-1-propenyl]-8-oxo-7-[(trimethylsilyl)amino]-, trimethylsilyl ester, $[6R-[3(E),6\alpha,7\beta]]-(9CI)$ (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

RN 148305-00-4 HCAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 3-[3-(formyloxy)-1-propenyl]-8-oxo-7-[(trimethylsilyl)amino]-, trimethylsilyl ester, $[6R-[3(E),6\alpha,7\beta]]$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

RN 148305-35-5 HCAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-amino-3-[3-(formyloxy)-1-propenyl]-8-oxo-, [6R-[3(Z),6α,7β]]-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

IT 148304-98-7P

RN 148304-98-7 HCAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,
3-[(1E)-3-iodo-1-propenyl]-8-oxo-7-[(trimethylsilyl)amino]-,
trimethylsilyl ester, (6R,7R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

IT 69959-14-4 148305-01-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(silylation of)

RN 69959-14-4 HCAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 3-[(1E)-3-(acetyloxy)-1-propenyl]-7-amino-8-oxo-, (6R,7R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

RN 148305-01-5 HCAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-amino-3-[3-(formyloxy)-1-propenyl]-8-oxo-, [6R-[3(E),6 α ,7 β]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.